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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/710,328	11/09/2000	Shigeru Mori	450100-02841	5072

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NEW YORK, NY 10151

EXAMINER

CHANG, AUDREY Y

ART UNIT	PAPER NUMBER
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2872

DATE MAILED: 08/01/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/710,328

Applicant(s)

MORI ET AL.

Examiner

Audrey Y. Chang

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 June 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 35, 36 and 39 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 35, 36 and 39 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s) _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Remark

- This Office Action is in response to applicant's amendment filed on June 9, 2003, which has been entered as paper number 16.
- By this amendment, the applicant has amended claims 35, 36 and 39 and has canceled claims 14-34, 27-28 and 40.
- Claims 35, 36 and 39 remain pending in this application.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. **Claim 35 is rejected under 35 U.S.C. 103(a) as being unpatentable over the patent issued to Tabata in view of the patent issued to Yano et al.**

Tabata teaches a *stereo image forming apparatus* that is comprised of a *stereo image forming device* (1 or 4) having a micro-computer and a program recording medium for *pasting* or *inserting* a previously produced *background image data* (b, of Figures 36 or 38), serves as the *two-dimensional image data*, to a *stereo image model* (or pair) having left eye perspective image and right eye perspective image (a, of Figures 36 or 38) to produce or *synthesize* a train of *parallax* images (c, of Figures 36 and 38), (please see Figures 1, 2, 36 and 38, columns 4, 9, 10, 27 and 28). Tabata teaches that the train of parallax images (C) is formed by combining the two dimensional background image data onto the stereo image model.

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Tabata teaches that the stereo image model is generated by projecting three-dimensional objects to the left and right visual points, (please see Figure 10). It is implicitly true that the stereo model is image data representing actual three-dimensional objects. It is also well known in the art to use a stereo camera arrangement to obtain stereo image model from an **actual** three-dimensional object as standard practice in the art as demonstrated by the teachings of Yano et al, wherein a stereo camera (220, Figure 1 and 2) having two charge couple device (CCD) for taking right eye and right eye perspective image of an actual object in order to create the stereo image model of the object is disclosed, (please see Figures 1 and 2). It would then have been obvious to apply the teachings of Yano et al to modify the stereo image forming apparatus of Tabata for the benefit of providing an alternative and more direct way of obtaining stereo image model of an actual three-dimensional object.

These references have met all the limitations of the claims with the exception that they do not teach explicitly that the image data is usable for forming a hologram. However these recitations of intended use in the preamble have not been given patentable weight because it has been held that a preamble is denied the effect of limitations where the claim is drawn to a structure and the portion of the claim following the preamble is a *self-contained description* of the structure *not depending* for the completeness upon the introductory clause. *Kropa v. Robie*, 88 USPQ 478 (CCPA 1951). In this case, the body of the claims is drawn to image data generation that does not rely on the feature of usable in hologram recording.

3. Claims 36 and 39 are rejected under 35 U.S.C. 103(a) as being unpatentable over the patent issued to Tabata and Patent application of Yano et al as applied to claim 35 above, and further in view of the patent issued to Benton (PN. 4,834,476).

The stereo image forming apparatus taught by Tabata in combination of the teachings of Yano et al as described for claim 35 above have met all the limitations of the claims. These references however

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do not teach explicitly to use the parallax image train formed by the stereo image forming apparatus to record hologram elements. But using parallax images to sequentially record hologram elements to form holographic stereograms is quite well known in the art as demonstrated by the teachings of Benton. Benton teaches that a series of images having different perspective views are being projected to the recording medium (44) sequentially as the *object beam*, (please see Figures 1 and 9). The object beam is then interfered with a reference beam to record a hologram element *sequentially* at the recording medium. The holographic stereogram consists of the plurality of *hologram elements*. It would then have been obvious to one skilled in the art to combine the teachings of Tabata, Yano et al and Benton to use the stereo image forming apparatus of Tabata in combination of Yano et al to form the series or train of the parallax images having different perspective views of an object with added background image as the object information to modulate the object beam to record a holographic stereogram for the benefit of providing a more accurate way of creating the stereo images therefore providing an improvement to the quality of the recorded holographic stereograms.

Response to Arguments

4. Applicant's arguments filed on June 9, 2003 have been fully considered but they are not persuasive. The newly amended claims are fully considered and they are not persuasive.
5. Applicant's arguments are mainly drawn to the amendments of the claims and they have been fully addressed in the paragraphs above.

Conclusion

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

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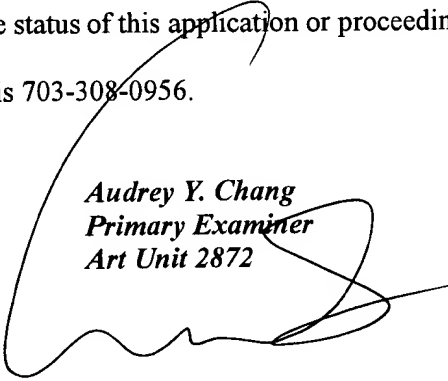
A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Audrey Y. Chang whose telephone number is 703-305-6208. The examiner can normally be reached on Monday-Friday (8:00-4:30), alternative Mondays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Drew Dunn can be reached on 703-305-0024. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9318 for regular communications and 703-872-9319 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0956.

Audrey Y. Chang
Primary Examiner
Art Unit 2872



A. Chang, Ph.D.
July 30, 2003